

## CLAIMS

The invention claimed is:

1. A method for message processing in a distributed data processing system having a plurality of nodes, said method comprising the steps of:

sending a plurality of messages from a process running on one of the nodes in the system to an equal plurality of other nodes in the system;

setting the status of said sending process to idle; and

changing the status of said sending process to "active" upon receipt of responses to said messages from all of said other nodes or upon receipt of notification that at least one response will not arrive.

2. The method of claim 1 further including the step of processing, by said sending process, said responses to said messages.

3. The method of claim 1 in which, prior to sending said message, said sending process selects a subset of nodes within said data processing system for receipt of said message.

4. The method of claim 1 in which said messages sent to said plurality of nodes are all the same.

5. A data processing system comprising:

a plurality of nodes connected by a network for sending messages between said nodes;

a plurality of message processing programs each being stored in one of said nodes;

a message sending process program residing in one of said nodes and being capable of entering an inactive state;

a message processing interface program, residing on said one node and being capable of (1) sending a plurality of messages in response to requests from said sending process program, said messages being directed to an equal plurality of nodes selected to receive said messages (2) setting the status of said sending process to inactive, and (3) changing the status of said sending process to active upon receipt of responses to said messages from all of said selected nodes or upon receipt of notification that at least one response will not arrive.

6. The system of claim 5 in which said interface also includes program code for responding to selection of a subset of destination nodes by said sending process program.

7. The system of claim 5 in which said sending process program is capable of processing said responses.

8. The system of claim 5 in which said messages sent to said plurality of nodes are all the same.

9. A computer program product stored within or on a machine readable medium containing program means for use in an interconnected network of data processing nodes said program means being operative:

to send a plurality of messages message from a process running on one of the nodes in the system to an equal plurality of other nodes in the system;

to set the status of said sending process to idle; and

to change the status of said sending process to "active" upon receipt of responses to said messages from all of said other nodes or upon receipt of notification that at least one response will not arrive.